IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Isabelle Guyon et al.

Serial No. 10/057,849

Filed: **January 24, 2002**

For: METHODS OF IDENTIFYING PATTERNS IN BIOLOGICAL SYSTEMS AND USES THEREFOR

Group Art Unit: 2121

Examiner: George S. Davis

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
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Sir:

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The items identified in this IDS may or may not be "material" pursuant to 37 CFR 1.56. The submission thereof by Applicants is not to be construed as an admission that any such patent, publication or other information referred to therein is material or considered to be

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112092.000039/519383.01

material (37 CFR 1.97(h)), or even qualifies as "prior art" under 35 USC 102 with respect to this invention unless specifically designated by Applicant as such.

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Respectfully submitted,

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By: _____
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 2

Complete if Known	
Application Number	10/057,849
Filing Date	01-24-2002
First Named Inventor	Isabelle Guyon
Art Unit	2121
Examiner Name	George B. Davis
Attorney Docket Number	0161 (112092-0039)

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U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AA	US- 4,881,178-B1	11-14-1989	Holland	
	AB	US- 5,138,694-B1	08-11-1992	Hamilton	
	AC	US- 5,649,068-B1	07-15-1997	Boser	
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	AE	US- 5,950,146-B1	09-7-1999	Vapnik	
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	AG	US- 6,134,344-B1	10-17-2000	Burges	
	AH	US- 6,157,921-B1	12-05-2000	Barnhill	
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	AM	US- 6,789,069-B1	09-07-2004	Barnhill	
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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]-Number[4]-Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T[6]

Examiner Signature		Date Considered	

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Attorney Docket Number	0161 (112092-0039)

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OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	BA	ALON, U., et al., "Broad patterns of gene expression revealed by clustering analysis of tumor and normal colon tissues probed by oligonucleotide arrays", *Proc. Natl. Acad. Sci. USA,* June 1999, pp. 6745-6750, Vol. 96, Cell Biology	
	BB	BLUM, A.L., et al., "Selection of Relevant Features and Examples in Machine Learning", *Artificial Intelligence,* Dec. 1997, pp. 245-271, Vol. 97.	
	BC	BREDENSTEINER, E.J., et al., "Multicategory Classification by Support Vector Machines", *Computation Optimizations and Applications,* 1999, pp. 53-79, Vol. 12	
	BD	BROWN, M.P.S., et al., "Knowledge-based analysis of microarray gene expression data by using support vector machines", *Proc. Natl. Acad. Sci. USA*, Jan. 4, 2000, pp. 262-267, Vol. 97, No. 1	
	BE	DEVIJVER, P., et al., *Pattern Recognition. A Statistical Approach,* 1982, pp. 218-219, Prentice-Hall International, London	
	BF	FUREY, T.S., et al., "Support vector machine classification and validation of cancer tissue samples using microarray expression data", *Bioinformatics,* 2000, pp. 906-914, Vol. 16, No. 10	
	BG	GOLUB, T.R., et al., "Molecular Classification of Cancer: Class Discovery and Class Prediction by Gene Expression Monitoring", *Science,* Oct. 15, 1999, pp. 531-537, Vol. 286	
	BH	GUYON, I., et al., "An Introduction to Variable and Feature Selection", *Journal of Machine Learning Research,* 2003, pp. 1157-1182, Vol. 3	
	BI	HASTIE, T., et al., "Gene Shaving: a New Class of Clustering Methods for Expression Arrays", Technical Report, Stanford University, 2000, pp. 1-40	
	BJ	KOHAVI, R., "The Power of Decision Tables", *European Conference on Machine Learning (ECML),* 1995, 16 pages	
	BK	KOHAVI, R., and JOHN, G.H., "Wrappers for Feature Subset Selection", *Artificial Intelligence,* Dec. 1997, pp. 273-324, Vol. 97, Issue 1-2, Special issue on relevance	
	BL	LE CUN, Y., et al., "Optimal Brain Damage", *Advances in Neural Information Processing Systems 2,* 1990, pp. 598-605	
	BM	MUKHERJEE, S., et al., "Support Vector Machine Classification of Microarray Data", Technical Report CBCL Paper 182, AI, Memo 1676 M.I.T., 1998	
	BN	WESTON, J., et al., "Feature Selection for SVMs", *Proc. 15th Conference on Neural Information Processing Systems (NIPS),* 2000, pp. 668-674	
	BO	ZHANG, X. and WONG, W., "Recursive Sample Classification and Gene Selection based on SVM: Method and Software Description", Technical Report, Department of Biostatistics, Harvard School of Public Health, 2001, 5 pages	
	BP	GUPTA, P., et al., "Beam Search for Feature Selection in Automatic SVM Defect Classification", *16th International Conference on Pattern Recognition (ICPR'02),* Aug. 2002, p. 20212, Vol. 2 (abstract only)	

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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